

WHAT IS CLAIMED IS

- 5
1. A network file server comprising:  
a data storage device;  
a request processing part connected to  
each server on a user's side via a predetermined  
10 backbone communication network, receiving a request  
from the server on the user's side for data  
processing including access to said data storage  
device, and issuing an instruction to a storage  
device management part for analyzing and responding  
15 to said request; and  
the data storage device management part  
connected with said request processing part via a  
predetermined local communication network, and  
executing predetermined processing including access  
20 to said data storage device based on the instruction  
issued by said request processing part.
- 25
2. The network file server as claimed in  
claim 1, wherein:  
said request processing part has a  
function of converting the request for data  
30 processing including access to the storage device  
issued by the server on the user's side into an  
instruction corresponding to a logical configuration  
in said data storage device; and  
said storage device management part has a  
35 function of converting the instruction corresponding  
to the logical configuration in the data storage  
device received from said request processing part

into an instruction corresponding to a physical configuration in the data storage device.

5

3. The network file server as claimed in claim 1, wherein:

10 said storage device management part has a cache, and, when data requested by said request processing part occurs in said cache, reads the data from said cache without actually accessing the data storage device, and transfers the read data to said request processing part.

15

20 4. The network file server as claimed in claim 1, wherein:

25 said request processing part has a cache, and, when data requested by the server on the user's side occurs in said cache, reads the data from said cache without transferring the processing request to the storage device management part, and transfers the read data to said server on the user's side.

30

35 5. An information processing apparatus connected to each server on a user's side via a predetermined backbone communication network, receiving a request from the server on the user's side for data processing including access to a predetermined data storage device, and issuing an instruction to a storage device management part for

analyzing and responding to said request.

5

6. The information processing apparatus  
as claimed in claim 5, having a function of  
converting the request for data processing including  
access to the storage device issued by the server, on  
10 the user's side into an instruction corresponding to  
a logical configuration in said data storage device.

15

7. The information processing apparatus  
as claimed in claim 5, having a cache, and, when  
data requested by the server on the user's side  
occurs in said cache, reading the data from said  
20 cache without transferring the processing request to  
the storage device management part, and transferring  
the read data to said server on the user's side as a  
response.

25

8. An information processing apparatus,  
connected with a predetermined request processing  
30 part via a predetermined local communication network,  
and executing predetermined processing including  
access to a predetermined data storage device based  
on an instruction issued by the predetermined  
request processing part.

35

9. The information processing apparatus as claimed in claim 8, having a cache, and, when data requested by the predetermined request processing part occurs in said cache, reading the data from said cache without actually accessing the predetermined data storage device, and transferring the read data to said request processing part as a response.

10

10. The information processing apparatus as claimed in claim 8, having a function of converting an instruction corresponding to a predetermined logical configuration in the predetermined data storage device received from the predetermined request processing part into an instruction corresponding to a physical configuration in said data storage device.

11. A computer readable program causing a computer to execute the steps of:

- a) receiving from a server in a user's side a request for data processing including access to a predetermined data storage device; and
- b) issuing an instruction for a predetermined storage device management part connected via a predetermined local communication network for analyzing and responding to said request.

35

12. The computer readable program as claimed in claim 11, further causing the computer to execute the step of:

5 c) converting the request for data processing including access to the data storage device from the server on the user's side into an instruction corresponding to a logical configuration in said data storage device.

10

13. The computer readable program as claimed in claim 11, further causing the computer to execute the step of:

15 c) responding to a request issued by the server on the user's side for target data without transferring said request to the storage device management part when the target data occurs in a cache of its own, by reading the target data from  
20 the cache and transferring it to said server on the user's side as a response.

25

14. A computer readable program causing a computer to execute the step of:

30 a) executing predetermined data processing including access to a predetermined data storage device based on an instruction issued by a request processing device connected via a predetermined local communication network.

35

15. The computer readable program as claimed in claim 14, further causing the computer to execute the step of:

5 b) responding to a request from the request processing device for data without actually accessing the predetermined data storage device when the requested data occurs in a cache of its own, by reading the relevant data from the cache and transferring it to said request processing device as  
10 a response.

15 16. The computer readable program as claimed in claim 14, further causing the computer to execute the step of:

b) converting an instruction received from the request processing device corresponding to a  
20 predetermined logical configuration in the data storage device into an instruction corresponding to a physical configuration in said data storage device.

25

17. A computer readable information recording medium storing therein the computer readable program claimed in claim 11.

30

18. A computer readable information recording medium storing therein the computer readable program claimed in claim 12.

35

19. A computer readable information  
recording medium storing therein the computer  
readable program claimed in claim 13.

5

20. A computer readable information  
recording medium storing therein the computer  
10 readable program claimed in claim 14.

15 21. A computer readable information  
recording medium storing therein the computer  
readable program claimed in claim 15.

20

22. A computer readable information  
recording medium storing therein the computer  
readable program claimed in claim 16.